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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,523	12/20/2001	Melaine Klasen-Memmer	Merck 2331	2849

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[REDACTED] EXAMINER

WU, SHEAN CHIU

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

1756

DATE MAILED: 03/31/2003

Z

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application N .	Applicant(s)
	10/022,523	KLASEN-MEMMER ET AL.
	Examiner Shean C Wu	Art Unit 1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-15 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.  
 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. 
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. Claims 1, 5-6 and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The components C and D in claims 1, 5-6 and 11-13 are vague because the components C and D are optionally added in claim 13 but not in claims 1, 5-6 and 11-13.

In Claim 10, the notation “Z” in line 2 is not defined.

In Claim 11, the notation “R<sup>21</sup>” in the formula II is not defined in Claims 1 and 5.

In Claim 12, the claim words “preferably” and “preferred” are indefinite. Also, the whole claim is vague because the rings A<sup>41-44</sup> are not part of the formula V and formula VI is missing in the claim.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1756

3. Claims 1-3 and 5-14 are rejected under 35 U.S.C. 102(b)/(e) as being anticipated by Andou et al. (WO 97/36847 or US 6,190576 or US 6,319,570).

The references disclose that the liquid crystal compounds are used to produce liquid-crystal compositions and devices including (super) twist nematic and the in-plane switching-driven thin-film transistor types or active matrix mode.

The composition example 5 on col. 64 comprising the compounds [5-HBCF(2F, 3F)-O2], [5-HVHEB(2F, 3F)-O2], [2-PyB-2, 3-PyB-2, 4-PyB-2, 3-HHB-O1, 2-PyBH-3, 3-PyBH-3 and 3-PyBB-2] and [3-HHB-F] read on the present formulae I, II, IV and V, respectively. Also, see composition examples 30. The references anticipate the claimed invention.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andou et al. abovementioned in view of Pausch et al. (US 6,027,665).

Andou differs from the claim in that the claim comprises an additional compound represented by the formula III. Because the compound of formula III used in IPS display in which the pixels are addressed by means of an active matrix is known in the art, it

Art Unit: 1756

would have been obvious to those skilled in the art to admix the compound with reference composition to arrive at the claimed invention. See from col. 2 to col. 5.

6. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andou et al. abovementioned in view of Leenhouts et al. (US 5,883,686).

Andou differs from the claim in that the claim comprises a three-pole switching element. Leenhouts teaches an active-matrix display device with three-pole switching elements such as TFTs with a smaller difference in charge current at different picture content. Because the three-pole switching element used in active matrix is known in the art, it would have been obvious to those skilled in the art to apply three-pole switching element in the reference active matrix display device to arrive at the claimed invention.

See lines 5-19 on col. 1.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C Wu whose telephone number is 703-308-3956. The examiner can normally be reached on Monday-Friday 9:30 -6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703-308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



SHEAN C. WU  
PRIMARY EXAMINER